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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,887	04/20/2001	Kevin R. Willett	85939.000193	4285

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EXAMINER

UHLIR, NIKOLAS J

ART UNIT

PAPER NUMBER

1773

DATE MAILED: 07/02/2002

Response: October 2, 2002 13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	JF 12
	09/839,887	Applicant(s)
	Examiner	WILLETT, KEVIN R.
	Nikolas J. Uhlir	Art Unit
<small>-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --</small>		
Period for Reply		
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.		
<ul style="list-style-type: none"> - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). 		
Status		
1) <input type="checkbox"/> Responsive to communication(s) filed on _____.		
2a) <input type="checkbox"/> This action is FINAL . 2b) <input checked="" type="checkbox"/> This action is non-final.		
3) <input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.		
Disposition of Claims		
4) <input checked="" type="checkbox"/> Claim(s) <u>1-20,23,24,26 and 33-65</u> is/are pending in the application.		
4a) Of the above claim(s) _____ is/are withdrawn from consideration.		
5) <input type="checkbox"/> Claim(s) _____ is/are allowed.		
6) <input checked="" type="checkbox"/> Claim(s) <u>1-20, 23-24, 26, 33-65</u> is/are rejected.		
7) <input type="checkbox"/> Claim(s) _____ is/are objected to.		
8) <input type="checkbox"/> Claim(s) _____ are subject to restriction and/or election requirement.		
Application Papers		
9) <input type="checkbox"/> The specification is objected to by the Examiner.		
10) <input type="checkbox"/> The drawing(s) filed on _____ is/are: a) <input type="checkbox"/> accepted or b) <input type="checkbox"/> objected to by the Examiner.		
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).		
11) <input type="checkbox"/> The proposed drawing correction filed on _____ is: a) <input type="checkbox"/> approved b) <input type="checkbox"/> disapproved by the Examiner.		
If approved, corrected drawings are required in reply to this Office action.		
12) <input type="checkbox"/> The oath or declaration is objected to by the Examiner.		
Priority under 35 U.S.C. §§ 119 and 120		
13) <input type="checkbox"/> Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).		
a) <input type="checkbox"/> All b) <input type="checkbox"/> Some * c) <input type="checkbox"/> None of:		
1. <input type="checkbox"/> Certified copies of the priority documents have been received.		
2. <input type="checkbox"/> Certified copies of the priority documents have been received in Application No. _____.		
3. <input type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).		
* See the attached detailed Office action for a list of the certified copies not received.		
14) <input type="checkbox"/> Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).		
a) <input type="checkbox"/> The translation of the foreign language provisional application has been received.		
15) <input type="checkbox"/> Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.		
Attachment(s)		
1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)		4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)		5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____		6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Withdrawal of Finality

1. The finality of the office action dated 5/22/02 has been withdrawn. The examiner regrets any inconvenience to the applicant this may have caused. A non-final office action on the merits follows.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-20, 23-24, 26, and 33-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ford et al. (US5545448) in view of Miyama et al. (US5763011).

4. Ford et al. teaches a colored extruded strip for use as a weather seal on a motor vehicle (Column 1, lines 41-46). This weather seal is comprises a composite door seal and static edge trim or carrier portion as shown in figure 1 (column 1, lines 20-23). The seal portion is extruded from elastomeric ethylene-propylene-diene polymers (EPDM), which are known thermosetting materials (Column 2 lines 20-24). The EPDM rubber that makes up the seal portion can be either a dense or sponge rubber (column 4, lines 30-33). The examiner takes the position that EPDM is inherently resilient to some degree. Ford et al. teaches that the static edge trim portion is formed of a colored plastic material (column 2, lines 28-30). The examiner takes the position that "colored plastic material" encompasses all plastic materials, and thus necessarily includes

thermoplastics. In addition, the static trim portion can incorporate a metallic formed carrier 7, which upon inspection of the drawings is substantially u-shaped (Column 2, lines 24-25). This metallic carrier is completely covered by the polymeric body, as shown in Figure 1. The examiner takes the position that a completely covered metal reinforcing member encompasses a metal reinforcing member that is partially covered. Thus, the limitations of claim 4 are met. Ford et al. teaches that the whole outer surface area of the combination seal and edge trim is covered with a colored spray coating (column 3, lines 30-33). This coating is a polyurethane material formulated to provide good adhesion and flexibility (column 3 lines 26-30) and is typically applied via spray coating (column 4, lines 37-40). This coated edge/seal trim article is described for use as a sealing device for a traditional corner joint in a vehicle door, wherein the surface of the edge/trim device has low surface friction, thereby allowing low door shut pressures to be achieved (column 3 line 66, column 4 line 3).

5. Ford et al. does not teach coating an automotive weatherseal with a heat fusible powder coating, wherein the powder coating forms a colliquefied layer having a thickness between .05-.2mm (50-200 μ m). Further, Ford et al. does not teach coating a automotive weatherseal with a heat fusible powder coating, wherein the powder coating is a thermoset material. Additionally, ford et al. does not teach a powder coating for an automotive weatherseal wherein the powder coating includes a thermoset and thermoplastic material. Ford et al. also does not teach a powder coating for a weatherseal, wherein the powder coating forms a contiguous colliquefaction. Still further, Ford et al. does not teach a powder coating for an automobile weatherseal

wherein the powder coating is located to form a sealing surface and has a gloss appearance. Further, Ford et al. does not teach a powder coating for an automobile weatherseal wherein the powder coating is located on at least one of the trim and sealing portion.

6. Miyama et al. teaches a functional coating for reducing friction when applied to the surfaces of a weather-stripping, such as that found in the glass run channel of an automobile (column 1, lines 10-15). This coating composition forms a minutely roughened surface that lowers the frictional resistance of the coating composition considerably (column 2, lines 32-35). This coating comprises a urethane paint, a first powder having a melting point lower than that of the urethane paint, and optionally a second powder having a melting point that is greater than that of the urethane paint (column 2, lines 42-60). Miyama et al. teaches that glass runs are typically made out of rubber, which has a melting point of $\sim 200^{\circ}\text{C}$ (column 3, lines 55-57). Table 1 lists suitable powders for the first powder, and includes known thermoplastic materials, such as polyethylene. Table 1 also lists suitable powders for use as the second powder in the coating composition, including epoxies, which are known thermosetting materials. Both powders are added to the polyurethane composition for the purpose of reducing the friction of the resultant coating (column 3, lines 50-57 and column 5, lines 18-27) Miyama teaches a method for applying a coating composition of this type to a piece of weather-stripping. This method comprises the steps of forming the glass run channel via extrusion, applying the coating composition to the desired areas of the glass run, heating the coated glass run (as would normally be done to vulcanize the rubber that

forms the glass run), and then cooling the glass run to form the finished product. As the coated glass run is heated the powder having a lower melting point than that of the rubber softens and rises to the surface of the coating, thereby minutely roughening the surface of the coating. In the case where the coating composition also contains a powder having a melting point that is higher than that of the rubber, these particles remain relatively stationary in the coating composition. As the glass run channel is used and wears away, the powder having a higher melting point than that of the rubber becomes slightly exposed, thereby minutely roughening the surface of the coating, thereby extending the lifetime of the glass run (column 4, line 34-column 5, line 64). Miyama et al. teaches a glass run channel that is coated with either a 50 or 100 μ m thick coating of this composition (column 6, lines 26-54).

7. Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to substitute the powder containing coating composition taught by Miyama et al. for the Urethane coating composition taught by Ford et al.

8. One would have been motivated to make this modification due to the fact that Ford et al. taught using a polyurethane coating composition to form a low friction surface on a weatherseal formed out of rubber, and the teachings in Miyama et al. that a urethane coating composition that contains 1 or more powders selected from thermoplastic and thermoset materials forms a low friction, long lasting, low friction coating on extruded substrates made out of rubber, and that adding powders to urethane coating compositions lowers the friction of the resulting coating.

*lower friction
by add
powder
containing
powder*

9. Regarding claim 17, wherein the applicant requires the powder coating to form a "contiguous colliquefaction." The applicant has defined "contiguous" on page 7, lines 15-18 of the specification as "a single piece connected film." Although Miyama et al. does not specifically teach that the coating composition forms a contiguous colliquefaction, the examiner takes the position that this limitation is met. The coating composition of Miyama et al. comprises 1 or 2 powders in a urethane binder. Although the particles are not specifically taught to flow together when they are melted to form a contiguous layer in and of themselves, the examiner takes the position that because the particles are embedded in a polyurethane binder, the coating composition necessarily meets the applicants definition of contiguous, as the polyurethane will be present between the powder thus resulting in a "single piece connected film." Regarding claim 19, wherein the applicant requires that the film have a "gloss" appearance. Although Miyama et al. does not specifically teach the glossiness of the coating composition, the examiner takes the position that the composition will inherently be glossy "to some degree," and thus meets this limitation.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikolas J. Uhlir whose telephone number is 703-305-0179. The examiner can normally be reached on Mon-Fri 7:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau can be reached on 703-308-2367. The fax phone numbers

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for the organization where this application or proceeding is assigned are 703-872-9310
for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or
proceeding should be directed to the receptionist whose telephone number is 703-305-
0389.

WU
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June 28, 2002

Paul Thibodeau
Paul Thibodeau
Examination Patent Examiner
Technology Center 1700